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NUTRIENT MANAGEMENT ACT 2002

FARM UNITS — WHAT OPERATIONS AND LAND TO INCLUDE

(Replaces OMAFRA Factsheet *Farm Units — What Operations And Land To Include*, Order No. 04-017)

H. Fraser

The first step in preparing your nutrient management strategy (NMS) or nutrient management plan (NMP) is to define your farm unit(s). Understanding the farm unit is important because it is the basis of management plans for the next five years.

Under the Nutrient Management Act, 2002, (NMA) Ontario Regulation 267/03 (Regulation), all new and expanding livestock operations above 5 nutrient units (NU) in size who apply for a building permit for a structure to house farm animals or store manure, and those building an earthen storage must have a NMS. These strategies will need to be submitted for OMAFRA approval. For existing operations that generate 300 or more NU they are required to complete a NMS and a NMP as well as registering their operation with OMAFRA. How you define your farm unit determines how and when your operation comes under the provincial regulations. This provides some degree of flexibility. (Phase-in dates are detailed in Table 1, and set out in O. Reg.267/03 s. 11.)

DEFINITION OF A FARM UNIT

A farm unit, as described in the Regulation, consists of the land and associated facilities used for an agricultural operation.

- At a minimum, it must include all the land under a single deed, on which the manure (or other prescribed materials) is generated, and on which it is managed. It may include several farms, if they are owned or rented by the same operator and are managed under a single NMS or NMP. The part of the farm unit on which the manure is generated may be located at any distance from the part of the farm unit to which it is applied.

- It does not, however, include land to which any manure may be transferred — under a broker agreement, under a nutrient transfer agreement, to another farm operation, or for use other than as a nutrient (e.g. for methane generation from an anaerobic digester). Nutrients transferred **into** a farm unit that is required to have an NMP **must** be included in the NMP for that farm unit, but they do not affect the total number of nutrient units generated on that farm unit.

- There may be several types of livestock operations being carried out (e.g., swine and chicken, beef and elk) in one farm unit, and there is no cap on the number of animals included in a farm unit.

- On the other hand, you, as the farm operator, may declare more than one farm unit within your operation as long as you can meet the minimum requirements for farm units set out in the Regulation and the farm units have separate strategies/plans. The choice is yours. Further, O. Reg. 267/03 s. 5(1) says that:

  It must be reasonably necessary, for the avoidance of any adverse effect described in subsection 18 (3) of the Act, for any prescribed materials generated on the land, or any nutrients applied on the land, to be managed by reference to a single nutrient management strategy or plan.

Although the intent of the Regulation is to permit flexibility in creating farm units that makes sense to a farm operator , it is not the intention to allow the creation of farm units that do not account for all the manure produced, or that are created to avoid the accountability required by the Act and Regulation. An example of 'avoidance of an adverse effect' could be if

one decided to structure a farm unit in such a way so that a liquid manure storage that was in poor condition and leaking, was purposely left out of the farm unit so it was not part of a phased in farm unit. This could be construed as trying to avoid the accountability required by the requirements for a NMS and NMP on this site.

Including All Farms and Fields In One Farm Unit

It is your decision whether to separate your farms or fields into two or more farm units, or to combine your agricultural operations into one farm unit.

Before deciding how to declare the farm unit(s), you might want to consider the following for each livestock operation you operate:

- What is the size, in NU, of each operation? OMAFRA tables or software are available for this calculation at www.omafra.gov.on.ca.

- Could your operation be structured so that only a NMS is required for part of the operation? In general, a NMS deals with manure production and storage; a NMP deals with manure storage and application. Completing only a NMS for one part of the operation could be much simpler than completing both a NMS and a NMP.

- What would be the phase-in dates for operations and would approved NMS/Ps be required? This will depend on whether or not the operation is new, expanding or existing, and the NU size of the operations involved (see Table 1 and Parts II and IV of the Regulation).

Remember that NMS/Ps are submitted as 5-year plans. Thus the farm units must remain as initially declared, and management of the operation will need to be consistent with the farm unit description for the life of the plan.

DECLARING MORE THAN ONE "SMALLER" FARM UNIT

You could subdivide your operation into smaller farm units with a reduced number of NU. Bear in mind that the manure from each farm unit may be handled separately or mixed together. This option could give you more time to develop a NMS/P, or could limit the approvals that you must obtain.

For example, a new operation that is comprised of more than two deeded properties, where as a result of activities carried out on one of the properties, the farm unit was considered 'new' may be able to be divided such that the current operation (on the second property) will not be phased-in and only the new operation on a separate farm property will be phased-in and require a NMS and possibly a NMP.

An existing operation consisting of several farms at a distance from each other may be easily divisible into two farm units. Several detailed examples are given below.

Example 1

A dairy farmer owns 3 farms on 3 separate properties and rents land on a fourth, but has no plans to build any barns at this time, or expand his herd, so is considered to be an "existing farm" (see *Example 1 map*):

- **Farm 1**: 165 dairy Holstein milking cows and 48 Holstein calves up to 400 lbs.
  (165 cows ÷ 0.7 cows/NU) + (48 calves ÷ 6 calves/NU) = 244 NU
- **Farm 2**: 35 dry Holstein cows
  (35 cows ÷ 0.7 cows/NU) = 50 NU
- **Farm 3**: 152 Holstein heifers over 400 lbs.
  (152 heifers ÷ 2 heifers/NU) = 76 NU
- **Farm 4**: Rented land

Manure from Farm 1 and Farm 2 is spread on those farms using the same application equipment, with the manure from one farm going on the other and vice-versa. Farm 4, the rented land, also gets manure from Farm 1 and Farm 2. However, because of the hauling distance, manure from Farm 3 is spread only on that farm.

Because the manure produced at Farms 1 and 2 goes on both those farms' fields, the farm operator decides to only include the NU at both those farms under the same farm unit. Therefore:

Farm 1 + Farm 2 = 244 NU + 50 NU = 294 NU.

Since 294 NU is less than 300 NU, this farm unit would not be phased-in. (See *Table 1.*) Farm 4, could also be included in the same NMS/P. Because Farm 3 is some distance away, it could be considered to be its own farm unit. Since 76 NU is less than 300 NU, this means this farm unit would also not be phased-in. (See *Table 1.*)

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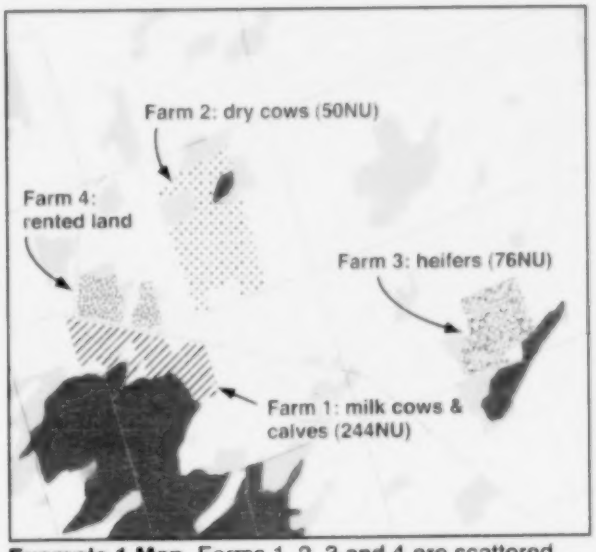
TABLE 1. Requirements for Different Sizes of Farm Units

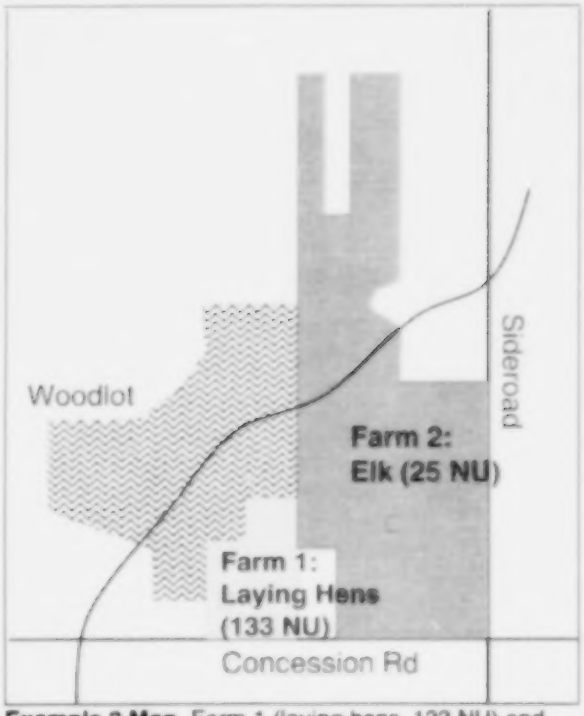
Category of Farm Unit that is Phased In	NMS/NMP	Approval or Registration
1. > 5 NU and < 300 NU with a building permit for a structure to house farm animals or store manure or construct an earthen storage	NMS	NMS - approved
2. ≥ 300 NU with a building permit for a structure to house livestock or store manure or construct an earthen storage	NMS NMP	NMS approved NMP on farm
3. Existing farms ≥ 300 NU and farms expanding into 300 NU or more without a building permit or earthen storage	NMS NMP	NMS/NMP on farm Farm operation registered
4. Any Phased in Farm (1,2 or 3) within 100 m of municipal well	NMS NMP	NMS approved NMP on farm
5. Any Phased in Farm (1,2, or 3) that land applies NASM	NMS NMP	NMS – approved or registered based on above. NMP – approved with the exception of the temporary NMP exemption to Jan 1 2007, for operations that are: • < 300 NU, • have a valid C of A, and • registered with OMAFRA. NMP approved for phased in operations if: • < 100 m to a municipal well • ≥ 300 NU Upon expiry of the exemption for operations < 300 NU an approved plan would be required



Example 1 Map. Farms 1, 2, 3 and 4 are scattered across the municipality on three different roads, and as far as 2 km from each other.

Example 2

A poultry farmer has a 20,000 layer operation (20,000 layers ÷150 layers/NU = 133 NU) on Farm 1, a 10-acre property (see *Example 2 Map*). All the manure is transferred off-farm under a broker agreement. The farmer would like to diversify and has purchased a 100-acre property next door (Farm 2) on which the farmer plans to build housing and manure storage for 50 adult elk (50 elk ÷ 2 elk/NU = 25 NU). Manure produced when the elk are not on pasture will be stored and spread on cropland on the same farm.



Example 2 Map. Farm 1 (laying hens, 133 NU) and Farm 2 (elk, 25 NU) are located next to each other on one concession road.

There are two options for declaring farm units for these two farms generating manure:

- **Farm 1** = 133 NU
  (existing operation that is not phased-in, since it's less than 300 NU and no construction)
- **Farm 2** = 25 NU
  (new operation that is phased-in, since it's more than 5 NU, and meets the criteria set out in subsection 11 (4) of the Regulation)

Because the poultry operation is not yet phased-in, it will not be required to complete a NMS. The poultry manure is transferred off-site and no nutrients are applied to the 10-acre property. So even if the farm unit was phased-in, it would not be required to complete a NMP. Even though the elk operation is right next door, it is considered a **new** operation over 5 NU in size because it meets the criteria set out in O. Reg. 267/03 s. 11(4). It therefore can be referred to as another farm unit (phased-in under the Regulation) and must have a NMS completed and approved by OMAFRA. Because the farm has less than 300 NU no NMP is required.

The other option is to combine both farms into one farm unit with one combined NMS for the entire farm unit. This farm unit is phased-in because of the planned construction of the elk housing and manure storage on a property. Again, as the farm unit is less than 300 NU a NMP is not required but is always a recommended practice.

COMBINING FARMS AND FIELDS INTO ONE FARM UNIT

The most common reasons for an operator putting all farms and fields under one farm unit and one NMP are simplicity and flexibility. Several examples can be found on the OMAFRA nutrient management website.

Example 3

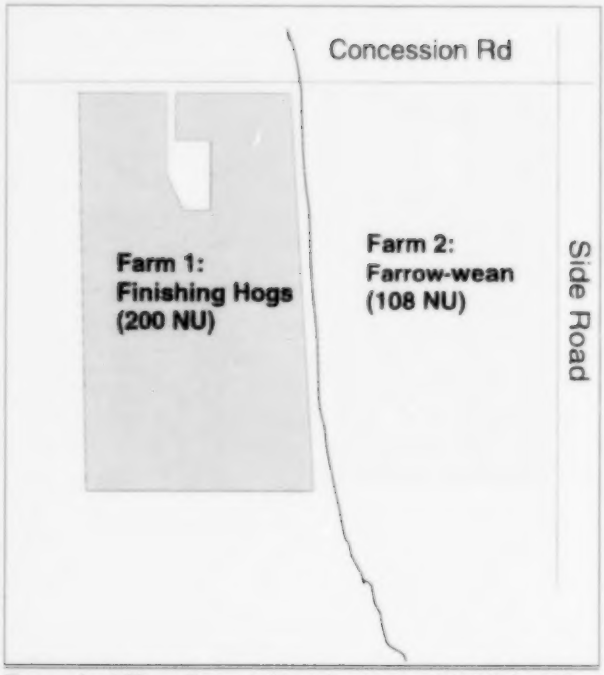
Using the same information from Example 1, the farmer could combine all four farms under one farm unit:

Farm 1 + Farm 2 + Farm 3 + Farm 4 =
244 NU + 50 NU + 76 NU + 0 NU = 370 NU

The difference in this option is that 370 NU is greater than 300 NU, so this farm unit would be phased-in on July 1, 2005 as an existing operation (see O. Reg. 267/03 s. 11(3)). This could be the best option for the farmer, especially if he wants to develop a consistent approach to nutrient management on the farm and would prefer to operate for the most part under the provincial framework. As this is an existing farm with more than 300 NU, the farm unit must be registered with OMAFRA and the NMS and NMP prepared by a certified individual and kept on the farm.

Example 4

A swine farmer has an existing operation (Farm 1) with 1,200 finishing hogs (1,200 finishers ÷ 6 finishers/NU = 200 NU) on a 100-acre property and rents additional cropland on which he spreads manure. He owns an adjacent 100-acre farm that has a small livestock barn on it right now (Farm 2) and plans to expand that operation by tearing down the old barn and building a 270-sow, farrow-to-wean operation (270 sows farrow-wean ÷ 2.5 sows farrow-wean = 108 NU).



Example 4 Map. Farm 1 (finishing hogs, 200 NU) and Farm 2 (farrow to wean, 108 NU) are located next to each other on the same concession road.

As separate farm units, the existing swine finishing barn would not be phased-in because it is less than 300 NU. The adjacent site would be phased in as soon as the building permit application for the new barn is submitted. However, the farmer thinks it would be easier to manage these two operations as one farm unit. In this case, he could combine the operations into one farm unit that would be phased in by the building permit and it is more than 300 NU as the combined operation would have 200 NU + 108 NU = 308 NU. In this example the application for the building permit triggers the need for an approved NMS. The NMP is prepared by a certified individual and kept on the farm.

NUTRIENT TRANSFER AGREEMENT

Why would a farmer transfer nutrient units out of the farm unit? A farm unit may have insufficient land base, or have some fields with high soil phosphorus or metal concentrations that reduce normal spreading rates. There may be crop restrictions or weather restrictions that don't allow spreading at the optimum time. You might not wish to be involved in crop production or manure application issues, or invest in the needed equipment. If more manure is produced or stored than can be applied in a timely manner to the available land, land must be acquired or the manure transferred off-farm.

Manure transferred *out* of an operation that is phased-in to another operation that is also phased-in must be done under a nutrient transfer agreement. Both the manure generator and manure receiver need to account for the transfer of manure in their NMS and NMP's if applicable. The nutrient transfer agreement needs to be included in the NMS material sent to OMAFRA, if the NMS requires an approval.

Manure may be transferred **out** through a broker. The broker removing the manure is then responsible for its use or disposal. Broker agreements also need to be included in the NMS submitted to OMAFRA.

You can lease more land from nearby neighbours, and apply the manure and crop the land. Lease agreements do not need to be included in the NMS/P submitted to OMAFRA.

Manure can be applied to land under an application agreement, but the operator does **not** crop the land. The land to which the manure is applied will become part of the generating farm's farm unit and can be included in the NMP. This agreement is not required by the regulation but it is an option for the farmer.

The transfer of nutrients in and out of your farm unit does **not** affect the date your farm unit is phased-in. The phase-in dates are determined based solely on the generation aspects of the farm unit.

Why would I transfer nutrients *into* my Farm Unit?

You might want to transfer nutrients into your farm unit if yours is a cash crop or livestock operation that produces insufficient nutrients for the land base available. You can reduce fertilizer costs and improve the soil tilth and organic matter by transferring in nutrients, either from neighbours who have more manure than they're able to spread on their land base, or by spreading biosolids or other available prescribed material.

Again, regardless of whether nutrients are transferred into your farm unit, the total number of NU that your farm generates from livestock or poultry is unaffected, as is the phase-in date for the regulation. Again, **nutrients transferred into your farm unit do not affect its total NU generated.**

How do I document nutrient transfers and application agreements?

Standard forms such as nutrient transfer agreements, and broker agreements are available from the OMAFRA website and on e-forms.

DECLARE YOUR FARM UNIT(S) TO SUIT *YOUR* SITUATION

Every situation will be different. The desire for flexibility or delaying phase-in to the regulation may be reason enough for you to declare more than one "smaller" farm unit. On the other hand, combining all farms into one farm unit can offer simplicity, flexibility of manure management, one primary set of consistent, province-wide rules, and just one NMS/P. As long as you meet the basic requirements for a farm unit that are set out in the Regulation, you can declare your farm unit(s) to suit what is best for you and your operation.

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FOR YOUR NOTES

Do you know about Ontario's new Nutrient Management Act?

The provincial Nutrient Management Act (NMA) and the Regulation 267/03, as amended, regulates the storage, handling and application of nutrients that could be applied to agricultural cropland. The objective is to protect Ontario's surface and groundwater resources.

Please consult the regulation and protocols for the specific legal details. This Factsheet is not meant to provide legal advice. Consult your lawyer if you have questions about your legal obligations.

For more information on the *NMA* call the Nutrient Management Information Line at 1-866-242-4460, e-mail *nman@omafra.gov.on.ca* or visit *www.omafra.gov.on.ca*.

Factsheets are continually being updated so please ensure that you have the most recent version.

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